

REMARKS

Claims 1-20 are currently pending in the Application. In the Office Action dated April 5, 2004 ("Office Action"), the Examiner rejected claims 1, 6, 10, 15, and 20 under 35 U.S.C. § 102(e) as being anticipated Kilkki et al., U.S. Patent No. 6,011,778 ("Kilkki"), rejected claims 2-3 and 11-12 under 35 U.S.C. § 103(a) as being unpatentable over Kilkki, and rejected claims 4-5, 7-9, and 13-19 under 35 U.S.C. § 103(a) as being unpatentable over Kilkki in further view of Storch et al., U.S. Patent No. 5,920,846. Applicant's representative again respectfully traverses these rejections.

Claim 1 of the current application is provided, below, for the Examiner's convenience, and is used as a basis for the following discussion. Underlining and parenthesized numerals are included, to facilitate a following table-based comparison between Kilkki and the invention claimed in claim 1:

1. A method for fairly servicing, by a request servicing device (1), electronic requests received by the request servicing device from request generating devices (2) interconnected (3) with the request receiving device, the method comprising:
establishing a pricing tier for each request generating device (4), a maximum rate of request servicing (5), and an expected time for serving a request at the maximum rate of request servicing (6);
for each request generating device with a premium pricing tier, maintaining an instantaneous rate of request servicing (7) by the request servicing device;
following servicing of each request from a request generating device by the request servicing device (8),
determining a time elapsed during servicing of the request (9);
when the time elapsed during servicing of the request is less than the expected time for serving a request established for the request generating device (10),
calculating a remaining time (11) equal to the difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request; and
waiting for a length of time based on the calculated remaining time prior to servicing another request for the request generating device (12).

Next, a two-column table is provided to show the correspondence between the above-enumerated and underlined features of claim 1 with the system and method disclosed in Kilkki, with corresponding features in Kilkki indicated by the word "YES," lack of correspondence in Kilkki indicated by the word "NO," and relevant reference to columns and lines of text in Kilkki and/or to numeric labels in figures of Kilkki provided:

<u>Invention Claimed in Claim 1</u>	<u>Kilkki's System and Method</u>
(1)	YES: network operator ("NO") (22 in Fig. 2)
(2)	YES: network source device ("NSD") and ("UNI") (24 in Fig. 2)
(3)	YES: arrow between NO and NSD
(4)	NO: charging for connection usage is based solely on NBR and connection duration (5:14-16), no separate pricing tier establishment
(5)	YES: user negotiates NBR with NO (6:38-39)
(6)	NO: the NSD/UNI, <i>a request generating device</i> , computes a difference between an expected cell arrival time and a measured cell arrival time, <i>not the request servicing device</i> (NO) (5:9-10; 5:47-51; Figure 2:24, 26)
(7)	NO: <i>the request servicing device (NO) does not maintain</i> an instantaneous rate of request servicing for request generating devices – instead, each request generating device (NSD/UNI) computes a request servicing rate for itself (6:12-16; 5:47-59; Figure 2:24,26,28; 7:2-6; 8:30-35)
(8)	NO: no indication of the NO being involved in each cell transmission in Kilkki
(9)	NO: no indication of the NO being involved in each cell transmission in Kilkki – instead, the request generating device computes the elapsed time (6:12-16; 5:47-59; Figure 2:24,26,28; 8; 7:2-6; 8:30-35)
(10)	NO: no indication of the NO being involved in each cell transmission in Kilkki – no indication of an action being performed depending on whether or not the requested service is performed in a time less than an expected time – in Kilkki, a priority level is calculated <i>by the request generating device</i> for each outgoing cell, regardless of

	whether or not a previous cell was serviced during the expected time
(11)	NO: in Kilkki, the request generating device calculates the difference between expected and actual cell arrival times (5:51-53)
(12)	NO: no mention anywhere in Kilkki of waiting for a time computed as a difference between expected and actual times. Instead, <i>the request generating device</i> computes a priority level for the next cell, and sends the cell off to a network node with the priority level. (Figure 1: 44, 46, 48; Figure 2: 24, 26, 28; 5:47-51; 7:1-14)

Prior to discussing the above table, Applicant's representative note that, as laid out in MPEP § 2131:

"[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil CO. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

As can be seen in the above table, Kilkki fails to teach or otherwise disclose most of the enumerated features of claim 1. A primary reason for this substantial lack of correspondence between Kilkki and the invention claimed in claim 1 is that the claimed invention is a "method for fairly servicing, *by a request servicing device*, electronic requests received by the request servicing device from request generating devices." In other words, all of the steps mentioned in claim 1 are carried out by a request servicing device. By contrast, most of the correspondences drawn by the Examiner between claim 1 and Kilkki's disclosure attempt to equate request-servicing-device activities with activities carried out, in Kilkki's system, by a request generating device. While, with appropriate supporting suggestions in the prior art, such correspondences might possibly be used in an obviousness-type rejection, they are not a suitable basis for an anticipation-type rejection, as is obvious from the above quoted section of the MPEP, and from many other materials included in the MPEP, and, of course, in myriad Federal Circuit decisions.

The Examiner explicitly states that the request generating device in Kilkki's system is

the user network interface ("UNI") (Office Action, page 3, lines 7 -13), also referred to by Kilkki as the network source device ("NSD"). The Examiner does not clearly, as far as Applicant's representative can tell, indicate what, in Kilkki, the Examiner finds equivalent to the claimed network servicing device. There are two possibilities: (1) the network operator (22 in Figure 2); or (2) a network node (32 in Figure 2) to which data, referred to in Kilkki as "cells," are transferred by the request generating device (24 in Figure 2). The network operator (22 in Figure 2) negotiates a nominal bit rate (NBR) with a user (20 in Figure 2) (column 6, lines 38-39) via the request generating device (24 in Figure 2), but the network node (32 in Figure 2) receives cells for transmission on the network from the request generating device (column 7, lines 16-30), and also filters the cells (column 7, lines 16-30), choosing whether or not to send them based on priorities associated with the cells. In the above table, the network operator is chosen as the request servicing device, since the Examiner first cites the negotiation of a bit rate in the rejection, on page 3.

Claim 1 clearly claims that the request servicing device:

establishes a pricing tier for each request generating device, a maximum rate of request servicing, and an expected time for serving a request at the maximum rate of request servicing;

maintains an instantaneous rate of request servicing by the request servicing device for each request generating device with a premium pricing tier; and

following servicing of each request from a request generating device by the request servicing device,

determines a time elapsed during servicing of the request;

when the time elapsed during servicing of the request is less than the expected time for serving a request established for the request generating device,

calculates a remaining time equal to the difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request; and

waits for a length of time based on the calculated remaining time prior to servicing another request for the request generating device.

But, of these steps and elements, Kilkki's network operator (22 in Figure 2) arguably establishes a maximum rate of request servicing, but only that single element, while the network node (32 in Figure 2) services each request by transmitting cells to the network. *Kilkki's UNI/NSD (24 in Figure 2), explicitly admitted by the Examiner to be the request generating device, and logically the only request-generating-device candidate in Kilkki, carries out all other of the steps in claim for which any kind of correspondence can be found in Kilkki, including determining elapsed times and assigning priorities to subsequently*

transmitted cells (column 5, lines 9-10; column 5, lines 47-59; column 6, lines 12-16; column 7, lines 2-6; column 8, lines 30-35; Figure 2, 24, 26, 28). The correspondences that arguably can be found in Kilkki are all listed in the above table. *Finally, despite the Examiner's statements to the contrary, no component or entity in Kilkki calculates a remaining time equal to the difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request and waits for a length of time based on the calculated remaining time prior to servicing another request for the request generating device.* There is no disclosure, teaching, or even suggestion in Kilkki remotely related to these last two claimed steps. As clearly described, in great detail, in Kilkki, the UNI/NSD, the request generating device, computes a difference between the measured bit rate and the nominal bit rate, and assigns a priority to a subsequent cell based on this computed difference. The UNI/NSD then sends the cell to the network node, as any other cell, regardless of the calculated difference. The network node may or may not transmit the cell to the network, depending on many different factors, including the amount of buffer space available for cells within the node. But the UNI/NSD does not wait. In claim 1, *the request servicing device makes the calculation and waits*, as clearly claimed in the final two steps.

A similar table can be prepared for each claim. The elements of claim 1 are similar to those of claim 10. However, in Applicant's representative's opinion, even cursory examination of claim 10 reveals that an anticipation rejection cannot be made based on Kilkki. Claim 10 claims:

10. A *request servicing device* that fairly services electronic requests received by the request servicing device from request generating devices interconnected with the request receiving device, the request servicing device including:

a memory that contains an established maximum rate of request servicing, an expected time for serving a request at the maximum rate of request servicing, and a pricing tier for each request generating device and that contains, for each request generating device with a premium pricing tier, an instantaneous rate of request servicing by the request servicing device; and

control functionality that services electronic requests received from the request generating devices and that, following servicing of each request from a request generating device by the request servicing device, determines a time elapsed during servicing of the request so that, when the time elapsed during servicing of the request is less than the expected time for serving a request established for the request generating device, the control functionality calculates a remaining time equal to the

difference between expected time for serving a request established for the request generating device and the time elapsed during servicing of the request and waits for a length of time based on the calculated remaining time prior to servicing another request for the request generating device. (emphasis added)

Kilkki's request servicing device, either the network node (32 in Figure 2) or the network operator (22 in Figure 2), does not contain any of the italicized elements shown above in claim 10. Instead, the request generating device includes these elements.

There is no basis for an anticipation rejection of independent claims 1 or 10, nor of any other of the current dependent claims that depend from claims 1 and 10. Basically, there is no device taught or even suggested in Kilkki equivalent in functionality or structure to Applicant's clearly claimed request servicing device, nor method equivalent to Applicant's claimed method. Kilkki essentially describes a system in which user devices are responsible for attempting to share bandwidth of one or more network nodes by assigning priorities to network messages that they transmit. They do so in cooperation with a network operator, with which they negotiate to establish a NBR, and with the network nodes, which prioritize messages, or cells, according to the priorities assigned to them by the user devices. By contrast, Applicant's clearly claimed system includes a request servicing device that receives requests, carries out the requests, and enforces different levels of service. In one service level, requestors receive no more than a certain amount of service in each time interval, while in another class of service, the request servicing device attempts to service requests at a maximum request serving rate.

The method by which Applicant's request servicing device manages service rates is quite different from Kilkki's described method carried out by Kilkki's request generating devices. Kilkki's system does not wait for periods computed by differences in maximum and realized request servicing rates. Instead, in Kilkki's system, user devices assign priorities to messages. In Kilkki's system, a low-price-tier device can still obtain up to the full bandwidth of the network, if no other user devices are transmitting messages, since, regardless of the assigned priority levels, the messages will be transmitted as fast as possible by the network nodes. In Applicant's system, a low-price-tier request generating device receives only the maximum request servicing for which it has contracted, and no more, even when it is the only device requesting services.

Applicant's representative believes the remaining 35 U.S.C. § 103(a) are equally unsupportable as the above-discussed anticipation rejections, because they restate fundamental misinterpretations of Kilkki's system, detailed above with respect to the 35 U.S.C. § 102(e) rejections. As but one small example, claim 1 includes the element: "for each request generating device with a premium pricing tier, maintaining an instantaneous rate of request servicing by the request servicing device," carried out by the request servicing device. However, in Kilkki's system, neither of the request servicing devices, the UNI/NSD and the network node, compute nor maintain an instantaneous rate or request servicing. Instead, in Kilkki's system, the request servicing device computes its own instantaneous rate of request servicing. Therefore, no device or component in Kilkki's system maintains information about the instantaneous rate or request servicing for a set of other devices. Applicant's representative acknowledges that Kilkki is related art, but is quite fundamentally different in design, operation, and results from Applicant's claimed invention. No rejection based solely or mostly on Kilkki is supportable.

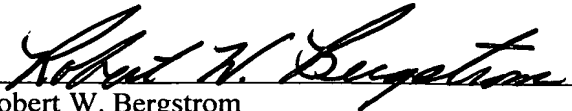
Applicant's representative urges the Examiner to re-read Kilkki again, with careful reference to Figures 1 and 2. Applicant's representative feels that the great differences in structure, design, and operation between Applicant's claimed system and the system disclosed by Kilkki will be readily apparent. Again, a fundamental difference is that Applicant's request servicing device carries out all of the steps in claim 1, while, in Kilkki, only a very of the steps can be argued to be carried out by either of two, separate request servicing devices.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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